

**DENR Antibody**  
**Catalog # ASC11786****Specification**

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**DENR Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">O43583</a>
Other Accession	<a href="#">NP_003668</a> , <a href="#">27501446</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 22 kDa

Application Notes	<b>Observed: 22 kDa KDa</b> DENR antibody can be used for detection of DENR by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunofluorescence start at 20 µg/mL.
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**DENR Antibody - Additional Information**

Gene ID	8562
<b>Target/Specificity</b>	
DENR; DENR antibody is human, mouse and rat reactive.	

**Reconstitution & Storage**

DENR antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

DENR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**DENR Antibody - Protein Information**

**Name** DENR

**Synonyms** DRP1

**Function**

Translation regulator forming a complex with MCTS1 to promote translation reinitiation. Translation reinitiation is the process where the small ribosomal subunit remains attached to the mRNA following termination of translation of a regulatory upstream ORF (uORF), and resume scanning on the same mRNA molecule to initiate translation of a downstream ORF, usually the main ORF (mORF). The MCTS1/DENR complex is pivotal to two linked mechanisms essential for translation reinitiation. Firstly, the dissociation of deacylated tRNAs from post-termination 40S ribosomal complexes during ribosome recycling. Secondly, the recruitment in an EIF2-independent manner of aminoacylated initiator tRNA to P site of 40S ribosomes for a new round of translation.

This regulatory mechanism governs the translation of more than 150 genes which translation reinitiation is MCTS1/DENR complex-dependent.

**Cellular Location**

Cytoplasm.

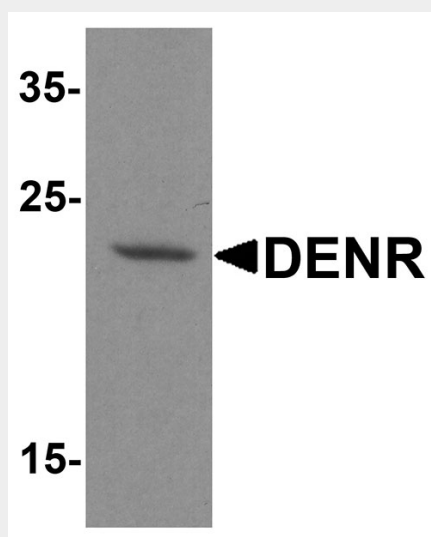
**Tissue Location**

Highly expressed in heart and skeletal muscle and moderately expressed in the brain, placenta, liver and pancreas. Weakly expressed in the lung and kidney.

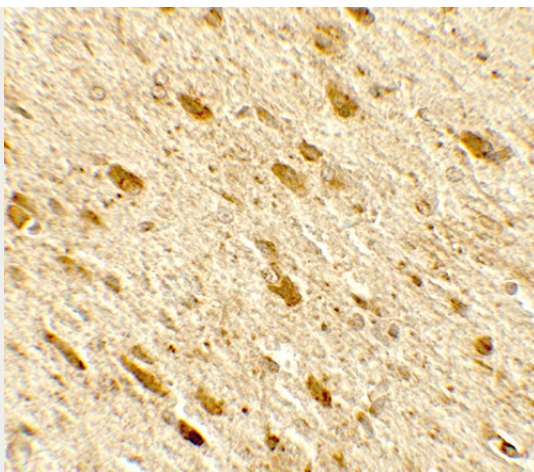
**DENR Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

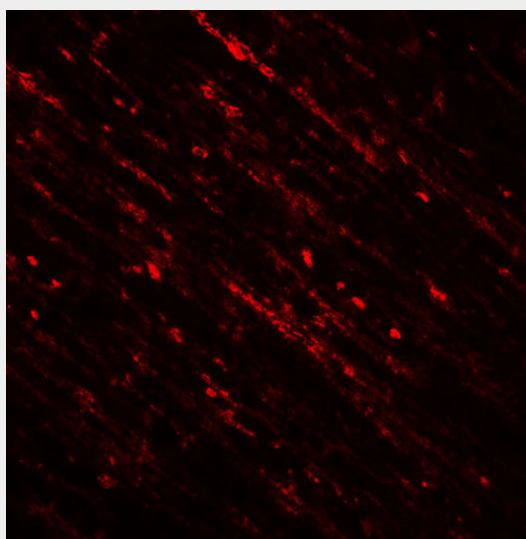
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**DENR Antibody - Images**

Western blot analysis of DENR in human brain tissue lysate with DENR antibody at 1 µg/ml.



Immunohistochemistry of DENR in rat brain tissue with DENR antibody at 5 µg/mL.



Immunofluorescence of DENR in rat brain tissue with DENR antibody at 20 µg/mL.

### **DENR Antibody - Background**

DENR (density-regulated protein), also designated DRP or smooth muscle cell associated protein 3 (SMAP-3), is a 198 amino acid protein that may be involved in the translation of target mRNAs by scanning and recognition of the initiation codon (1). It plays a role in the modulation of the translational profile of a subset of cancer-related mRNAs when recruited to the translational initiation complex by the oncogene MCTS1 (2,3). DENR contains a SUI1 domain and is found in a variety of tissues with highest levels present in skeletal and cardiac muscle. It is up-regulated in ovarian and breast cancer cells by ERBB2 overexpression (4).

### **DENR Antibody - References**

Deyo JE, Chiao PJ, Tainsky MA. DRP, a novel protein expressed at high cell density but not during growth arrest. *DNA Cell Biol.* 1998; 17:437-47.  
Skabkin MA, Skabkina OV, Dhote V, et al. Activities of Ligatin and MCT-1/DENR in eukaryotic translation initiation and ribosomal recycling. *Genes Dev.* 2010; 24:1787-801.  
Mazan-Mamczarz K and Gartenhaus RB. Post-transcriptional control of the MCT1-associated protein DENR/DRP by RNA-binding protein AUF1. *Cancer Genomics Proteomics* 2007; 4:233-9.  
Oh JJ, Grosshans DR, Wong SG et al. Identification of differentially expressed genes associated with HER-2/neu overexpression in human breast cancer cells. *Nucleic Acids Res.* 1999; 27:4008-17.